Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.10.2014 *Version 1* *Revision: 25.09.2014*

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Trade name: GC Optiglaze Color (Clear, Orange, Red, Olive, Pink, Grey, Blue, White, White Grey)**
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **Application of the substance / the mixture** *Auxillary for dental technology*

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
GC EUROPE N.V.
Interleuvenlaan 33
B-3001 Leuven
Tel. +32/(0)16/74.10.00
Fax +32/(0)16/40.26.84

msds@gceurope.com

· **Further information obtainable from:** *Regulatory affairs*
· **1.4 Emergency telephone number:**
National poison center for United Kingdom of Great Britain and Northern Ireland:
Belfast: +44 28 90 63 2032
Birmingham: +44 121 507 4123
Edinburgh: +44 131 242 1383
Newcastle Upon Tyne: +44 191 2606182/+44 191 2606180
Penarth: +44 292 071 55 54

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**
Flam. Liq. 2 H225 Highly flammable liquid and vapour.
Skin Irrit. 2 H315 Causes skin irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
· **Hazard pictograms**

GHS02 GHS07

· **Signal word** *Danger*

· **Hazard-determining components of labelling:**
Methyl methacrylate
· **Hazard statements**
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.10.2014 *Version 1* *Revision: 25.09.2014*

Trade name: GC Optiglaze Color (Clear, Orange, Red, Olive, Pink, Grey, Blue, White, White Grey)

(Contd. of page 1)

H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

· **Precautionary statements**

P210	*Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.*
P280	*Wear protective gloves / eye protection / face protection.*
P272	*Contaminated work clothing should not be allowed out of the workplace.*
P303+P361+P353	*IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.*
P405	*Store locked up.*
P501	*Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Additional information:**
34.3 % of the mixture consists of component(s) of unknown toxicity.
Contains 34.3 % of components with unknown hazards to the aquatic environment.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** *Not applicable.*

· **vPvB:** *Not applicable.*

SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterization: Mixtures**

· **Description:**

Only substances required to be mentioned according to Annex II of regulation 1907/2006 are listed. Information on the other substances that may be present can be obtained upon request.

· **Dangerous components:**

CAS: 80-62-6 *EINECS: 201-297-1* *Index number: 607-035-00-6*	*Methyl methacrylate* *Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335*	*50-70%*
CAS: 13463-67-7 *EINECS: 236-675-5*	*titanium dioxide*	*1-5%*
CAS: 75980-60-8 *EINECS: 278-355-8*	*diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide* *Repr. 2, H361f*	*1-5%*

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:**
Immediately remove any clothing soiled by the product.
If symptoms persist consult doctor.

· **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
Seek medical treatment.

· **After eye contact:**
Rinse opened eye for several minutes under running water.

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.10.2014 *Version 1* *Revision: 25.09.2014*

Trade name: GC Optiglaze Color (Clear, Orange, Red, Olive, Pink, Grey, Blue, White, White Grey)

(Contd. of page 2)

If symptoms persist consult doctor.
· ***After swallowing:***
Rinse out mouth and then drink plenty of water.
If symptoms persist consult doctor.
· ***4.2 Most important symptoms and effects, both acute and delayed*** *Allergic reactions*
· ***4.3 Indication of any immediate medical attention and special treatment needed***
No further relevant information available.

SECTION 5: Firefighting measures

· ***5.1 Extinguishing media***
· ***Suitable extinguishing agents:*** *CO2, sand, extinguishing powder. Do not use water.*
· ***For safety reasons unsuitable extinguishing agents:*** *Water*
· ***5.2 Special hazards arising from the substance or mixture***
Formation of toxic gases is possible during heating or in case of fire.
· ***5.3 Advice for firefighters***
· ***Protective equipment:*** *Wear self-contained respiratory protective device.*
· ***Additional information***
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· ***6.1 Personal precautions, protective equipment and emergency procedures***
Remove persons from danger area.
Keep away from ignition sources.
Avoid contact with the eyes and skin.
Wear protective clothing.
· ***6.2 Environmental precautions:***
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to penetrate the ground/soil.
In case of seepage into the ground inform responsible authorities.
· ***6.3 Methods and material for containment and cleaning up:***
Ensure adequate ventilation.
Absorb liquid components with liquid-binding material.
Dispose of the material collected according to regulations.
· ***6.4 Reference to other sections***
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· ***7.1 Precautions for safe handling***
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Avoid contact with the eyes and skin.
· ***Information about fire - and explosion protection:***
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.10.2014 *Version 1* *Revision: 25.09.2014*

Trade name: GC Optiglaze Color (Clear, Orange, Red, Olive, Pink, Grey, Blue, White, White Grey)

(Contd. of page 3)

Do not spray onto a naked flame or any incandescent material.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Store only in unopened original receptacles.
· **Information about storage in one common storage facility:** *Store away from foodstuffs.*
· **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
Store in a cool place.
· **7.3 Specific end use(s)** *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** *No further data; see item 7.*

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
80-62-6 Methyl methacrylate	
WEL ()	Short-term value: 416 mg/m³, 100 ppm Long-term value: 208 mg/m³, 50 ppm
13463-67-7 titanium dioxide	
WEL ()	Long-term value: 10* 4** mg/m³ *total inhalable **respirable

· **Additional information:** *The lists valid during the making were used as basis.*

· **8.2 Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Avoid contact with the eyes and skin.
Wash hands before breaks and at the end of work.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
· **Respiratory protection:** *Suitable respiratory protective device recommended.*
· **Protection of hands:**

Protective gloves

· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.10.2014 *Version 1* *Revision: 25.09.2014*

Trade name: GC Optiglaze Color (Clear, Orange, Red, Olive, Pink, Grey, Blue, White, White Grey)

(Contd. of page 4)

· **Eye protection:**

Tightly sealed goggles

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	*Fluid*
Colour:	*According to product specification*
· **Odour:**	*Pungent*
· **Odour threshold:**	*Not determined.*
· **pH-value:**	*Not determined.*
· **Change in condition**	
Melting point/Melting range:	*Undetermined.*
Boiling point/Boiling range:	*101 °C*
· **Flash point:**	*10 °C*
· **Flammability (solid, gaseous):**	*Not applicable.*
· **Ignition temperature:**	*Undetermined.*
· **Decomposition temperature:**	*Not determined.*
· **Self-igniting:**	*Product is not selfigniting.*
· **Danger of explosion:**	*Product does not present an explosion hazard.*
· **Explosion limits:**	
Lower:	*2.1 Vol %*
Upper:	*12.5 Vol %*
· **Vapour pressure:**	*Not determined.*
· **Density at 20 °C:**	*1.06 g/cm³*
· **Relative density**	*Not determined.*
· **Vapour density**	*Not determined.*
· **Evaporation rate**	*Not determined.*
· **Solubility in / Miscibility with water:**	*Insoluble.*
· **Partition coefficient (n-octanol/water):**	*Not determined.*
· **Viscosity:**	
Dynamic:	*Not determined.*
Kinematic:	*Not determined.*
· **Solvent content:**	
Organic solvents:	*0.0 %*
Solids content:	*10.0 %*

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.10.2014 *Version 1* *Revision: 25.09.2014*

Trade name: GC Optiglaze Color (Clear, Orange, Red, Olive, Pink, Grey, Blue, White, White Grey)

(Contd. of page 5)

· **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.
· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **10.3 Possibility of hazardous reactions** No dangerous reactions known.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity:**
· **LD/LC50 values relevant for classification:** No further relevant information available.
· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** No irritating effect.
· **Sensitization:** Sensitization possible through skin contact.
· **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant
· **Repeated dose toxicity** No further relevant information available.
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
No further relevant information available.

SECTION 12: Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **12.2 Persistence and degradability** No further relevant information available.
· **12.3 Bioaccumulative potential** No further relevant information available.
· **12.4 Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Other adverse effects** No further relevant information available.

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.10.2014 *Version 1* *Revision: 25.09.2014*

Trade name: GC Optiglaze Color (Clear, Orange, Red, Olive, Pink, Grey, Blue, White, White Grey)

(Contd. of page 6)

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**	
18 00 00	*WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care)*
18 01 00	*wastes from natal care, diagnosis, treatment or prevention of disease in humans*
18 01 06*	*chemicals consisting of or containing dangerous substances*

· **Uncleaned packaging:**
· **Recommendation:** *Disposal must be made according to official regulations.*

SECTION 14: Transport information

· **14.1 UN-Number**
· **ADR, IMDG, IATA** *UN1247*

· **14.2 UN proper shipping name**
· **ADR** *1247 METHYL METHACRYLATE MONOMER, STABILIZED, mixture*
· **IMDG, IATA** *METHYL METHACRYLATE MONOMER, STABILIZED, mixture*

· **14.3 Transport hazard class(es)**

· **ADR**

· **Class** *3 (F1) Flammable liquids.*
· **Label** *3*

· **IMDG, IATA**

· **Class** *3 Flammable liquids.*
· **Label** *3*

· **14.4 Packing group**
· **ADR, IMDG, IATA** *II*

· **14.5 Environmental hazards:**
· **Marine pollutant:** *No*

· **14.6 Special precautions for user** *Warning: Flammable liquids.*
· **Danger code (Kemler):** *339*

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.10.2014 *Version 1* *Revision: 25.09.2014*

Trade name: GC Optiglaze Color (Clear, Orange, Red, Olive, Pink, Grey, Blue, White, White Grey)

(Contd. of page 7)

· **EMS Number:**	F-E,S-D
· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Limited quantities (LQ)**	1L
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· **Transport category**	2
· **Tunnel restriction code**	D/E
· **IMDG**	
· **Limited quantities (LQ)**	1L
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· **UN "Model Regulation":**	UN1247, METHYL METHACRYLATE MONOMER, STABILIZED, mixture, 3, II

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

· **Relevant phrases**
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H361f Suspected of damaging fertility.
· **Classification according to Regulation (EC) No 1272/2008** Calculation method

· **Department issuing MSDS:** Regulatory affairs
· **Contact:** msds@gceurope.com
· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.10.2014 *Version 1* *Revision: 25.09.2014*

Trade name: GC Optiglaze Color (Clear, Orange, Red, Olive, Pink, Grey, Blue, White, White Grey)

(Contd. of page 8)

Repr. 2: Reproductive toxicity, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

· ***Sources***
• ECHA (http://echa.europa.eu/)
• EnviChem (www.echemportal.org)

· **** Data compared to the previous version altered.***
This version replaces all previous versions.
Disclaimer:
The information contained herein is believed to be true and accurate. However, all statements, recommendations or suggestions are made without any guarantee, representation or warranty, express or implied, on our part. Therefore, no warranty is made or to be implied that the information set out in this document is accurate or complete, and we accordingly exclude all liability in connection with the use of this information or the products referred to herein. All such risks are assumed by the purchaser/user. The information contained herein is also subject to change without notice. For the avoidance of doubt, however, nothing in this document excludes or limits our liability for death or personal injury caused by our negligence or for fraudulent misrepresentation.